

GAS SYSTEMS AND METHODS FOR ENABLING RESPIRATORY STABILITY

ABSTRACT OF THE DISCLOSURE

Minimal concentrations of CO₂ are mixed with pressurized air to provide a gas
5 mix effective for stabilizing breathing of target patients or users. CO₂ concentrations
below about 2% and preferably between about .5% and 1.25% are employed. A gas
modulator includes a gas mixing module, a sensor and a control processor. The gas
mixing module mixes plural gases, including CO₂, into a gas mix, for delivery to a
substantially leak-proof patient face mask. The sensor, located substantially at the face
10 mask, measures CO₂ concentration in the face mask. The control processor, based on a
signal from the sensor, controls the CO₂ concentration in the gas mix.